



Piezoelectric range offers precise operation

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Unimatic Engineers has released a piezoelectric range of motors, actuators and resonators that are precise and inexpensive to produce.

To address the increasing demand for miniature components and motion systems, Unimatic Engineers has introduced a new piezoelectric range, which encompasses motors, actuators and resonators. Piezoelectric elements are based on laminated ceramics that expand by a few micrometers when an electric micro voltage is applied.

The rate of expansion is entirely predictable and completely silent. Unimatic's new Elliptec products exploit these characteristics to create useful high-precision motion. The design is such that the units are inexpensive to produce and can therefore be used in a huge range of applications, particularly those that require precise control, low weight or small size, portability, or minimal energy consumption. The actuators are the simplest of the Elliptec range, using the deformation directly or through a lever arm to increase the stroke length.

This gives a two-position (extended and retracted) operation. Multi-position actuators are also available, but are more complicated in design. The motors repeatedly cycle the piezo element to create continuous motion, with both linear and rotary versions available. The Elliptec products are suitable for use in CD trays and auto-focus cameras, medical applications and precision optics. Exploratory discussions are underway for a number of automotive applications, including within the fuel supply systems, passenger features and low emissions developments.

Unimatic's Managing Director, Martin Stevens, says: "Applications are nearly all bespoke and we can offer high-level support for users of piezo actuation".

"Alternatively, we have made available a starter pack that includes everything needed to install a unit".

"This lets potential users to both 'plug and play' to explore the potential of the technology and to undertake their own installations with confidence".

"The use of piezo is now growing rapidly as engineers come to appreciate how it addresses today's needs for low cost, light weight, high precision and total reliability".

This media release can also be downloaded from: www.engineeringtalk.com

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